



King's Research Portal

DOI:

[10.1016/j.midw.2018.01.014](https://doi.org/10.1016/j.midw.2018.01.014)

Document Version

Peer reviewed version

[Link to publication record in King's Research Portal](#)

Citation for published version (APA):

Arias, T., & Coxon, K. (2018). An experiential model of education introduced to improve the confidence of student midwives in undertaking second stage management of the perineum (SSMP). *MIDWIFERY*, 59, 144-148. <https://doi.org/10.1016/j.midw.2018.01.014>

Citing this paper

Please note that where the full-text provided on King's Research Portal is the Author Accepted Manuscript or Post-Print version this may differ from the final Published version. If citing, it is advised that you check and use the publisher's definitive version for pagination, volume/issue, and date of publication details. And where the final published version is provided on the Research Portal, if citing you are again advised to check the publisher's website for any subsequent corrections.

General rights

Copyright and moral rights for the publications made accessible in the Research Portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognize and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the Research Portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the Research Portal

Take down policy

If you believe that this document breaches copyright please contact librarypure@kcl.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.

Manuscript Number: YMIDW-D-17-00194R1

Title: An experiential model of education introduced to improve the confidence of student midwives in undertaking second stage management of the perineum (SSMP)

Article Type: VSI: Education

Keywords: Experiential Model
Education
Second stage Management of the Perineum
Intrapartum Care

Corresponding Author: Ms. Teresa Arias, MSc

Corresponding Author's Institution: King's College London

First Author: Teresa Arias, MSc

Order of Authors: Teresa Arias, MSc; Kirstie Coxon, RN, RM, BSc, MA, PhD

Manuscript Region of Origin: UNITED KINGDOM

Abstract: Abstract

Background and Objective

The limited availability of high quality evidence related to second stage management of the perineum (SSMP) combined with a perceived shift in UK practice towards a 'hands off' the perineum/fetal head approach are likely to have impacted significantly on student midwives' understanding of SSMP. This paper presents a classroom based educational session using low fidelity simulation, which was designed in response to student feedback and aimed to improve confidence in this skill.

Design

Reflective Teaching practice, based on evaluation of SSMP teaching

Setting

An undergraduate midwifery programme based at an inner city university in London UK

Participants

Student Midwives

Findings

The education session based on Kolb's experiential approach to learning appeared to address gaps in the previous teaching which was identified by students. The classroom offered students a supportive setting in which to experiment with different SSMP approaches with a view to personalising care and without compromising safety.

Conclusions and implications for practice

Although further longitudinal research is needed, the experiential model appears to offer a low resource approach to teaching SSMP and has potential application in other countries.

Ms. Ref. No.: YMIDW-D-17-00194

Title: An experiential model of education introduced to improve the confidence of student midwives in undertaking second stage management of the perineum (SSMP)

Requested Revisions

We would like to thank the reviewers of the paper for their comments and insights. The paper has now been revised and responses to comments are summarised below

Peer reviewer 1	Revisions made
Improve the description of your Highlights in order to make them reflect the specifics of your project, for example: "a safe environment"; for what? Or compared to what? This is hard to understand. Simulation is always made to reinforce theory with practical knowledge. So maybe delete this?	<p>I. Removed 'safe' and replaced sentence with Classrooms offer students a supportive setting in which to experiment with different SSMP approaches'</p> <p>II. 'SSMP simulation and skills training reinforces theory with practical knowledge' has been removed</p>
The Background and Objective section of the Abstract already read like the whole abstract; this confused me. Could you please revise your abstract, maybe by reducing some text in this section? For example, I do not think that Kolb needs to be mentioned twice. Thank you!	I. Detail in these sections has been reduced and one mention of Kolb has been removed
Page 2, second paragraph; as an international reader I do not quite understand what this trial and discussion left you with in the UK; maybe this needs to be mentioned. Only later on I understand that both practices are used.	I. One line 'UK midwives use both 'hands on' and 'hands poised' approaches (Trochez 2011)' inserted to clarify this.
Sometimes I do not understand if you talk about YOUR students, or students from a study, or students in general (for example page 4, second para). Could you please check and clarify this in your paper?	I. I have inserted 'Student evaluations' and 'the' students, where relevant throughout the paper, to clarify that this refers to the university students
<p>Model</p> <p>The description of the methods is most often clear, except for a few aspects:</p> <ul style="list-style-type: none"> - Page 4, 5, 6; bold terms: I did not understand this, until I arrived at the end of this section (last line page 6); could you please improve the readability by referring to table 1 at the beginning?, and use table 1 as a ref each time you refer to this? 	I. I have inserted Table 1. At the beginning of the section making reference to the stages of learning with an explanation that the writing in Bold refers to stages in Table 1.
Again see Background; what students?	See above
<p>NB: the right term is Global Standards for Midwifery Education, not "basic"</p> <p>And "amended in 2013"</p>	'Basic' has been removed and new date inserted in text and references.
<p>References</p> <p>Adequate, reduce to 15 to max 20 refs</p>	Two references have been removed and now is within the recommended number of references=20
Reviewer 2:Grammatical errors/ typos	None found on checking the revised

None found except one sentence on pg 3 1st sentence under "Experiential learning' header	version
---	---------

14th January 2018

To whom it may concern

We would like to thank the reviewers for their valuable suggestions.

Please find the revised 'Highlights', 'Manuscript' and references uploaded and a detailed table with the revisions made.

Kind Regards

Teresa Arias and Kirstie Coxon.

Title Page

Authors and Affiliations

Teresa Arias RM BSc MSc PGCEA

Senior Teaching Fellow

Department of Midwifery

Florence Nightingale Faculty of Nursing, Midwifery and Palliative Care

King's College London

57 Waterloo Road

SE1 8WA

Teresa.1.arias@kcl.ac.uk

Kirstie Coxon Rn, RM, BSc, MA, PhD

Associate Professor

Department of Midwifery

Faculty of Health, Social Care and Education

Kingston and St Georges University

k.coxon@sgul.kingston.ac.uk

Highlights

- Classrooms offer students a supportive setting in which to experiment with different SSMP approaches
- The experiential learning model offers a low resource approach to teaching
- The model has potential application in other countries and has been positively evaluated

Abstract

Background and Objective

The limited availability of high quality evidence related to second stage management of the perineum (SSMP) combined with a perceived shift in UK practice towards a 'hands off' the perineum/fetal head approach are likely to have impacted significantly on student midwives' understanding of SSMP. This paper presents a classroom based educational session using low fidelity simulation, which was designed in response to student feedback and aimed to improve confidence in this skill.

Design

Reflective Teaching practice, based on evaluation of SSMP teaching

Setting

An undergraduate midwifery programme based at an inner city university in London UK

Participants

Student Midwives

Findings

The education session based on Kolb's experiential approach to learning appeared to address gaps in the previous teaching which was identified by students. The Classroom setting offered students a supportive setting in which to experiment with different SSMP approaches with a view to personalising care and without compromising safety.

Conclusions and implications for practice

Although further longitudinal research is needed, the experiential model appears to offer a low resource approach to teaching SSMP and has potential application in other countries.

An experiential model of education introduced to improve the confidence of student midwives in undertaking second stage management of the perineum (SSMP)

Background

There is little high quality evidence to guide practice on second stage management of the perineum (SSMP). This, combined with a perceived shift in practice towards a 'hands off' approach during the second stage of labour, has impacted on student midwives' understanding of SSMP, and presents an educational challenge.

The change in SSMP practice in the United Kingdom (UK) has been associated with the 'Hands on or Hands Poised' ('HOOP') randomised controlled trial (McCandlish et al 1998). The HOOP trial compared a 'hands on' approach (then usual practice) with a 'hands poised' approach, and found the 'hands on' approach was associated with a reduction in mild perineal pain at ten days. Perineal trauma was reported as a secondary outcome, and there was no overall difference in rates of trauma between the 'hands on' and 'hands poised' groups, although a lower episiotomy rate was noted in the 'hands poised' group (McCandlish et al 1998). UK midwives use both 'hands on' and 'hands poised' approaches (Trochez et al 2011). The intervening years have seen a rise of obstetric anal sphincter injuries (OASI), giving rise to widespread concern about perineal trauma during birth (Trochez et al

2011), and a drive to understand better how and whether SSMP practices might reduce this.

Current UK guidance reflects the uncertainties within the available evidence, recommending that either a 'hands on' or a 'hands poised' approach may be used during normal birth (NICE 2014, pg 60). To date, there is little published evidence on how student midwives develop confidence in SSMP. Whilst evaluating this aspect of teaching, student midwives at a London university (n= 285) were asked whether they felt confident in SSMP and, if not, what would improve their confidence. Whilst 43% answered positively, 57% of students identified a need for additional teaching input. This paper describes a learning opportunity introduced to improve students' understanding and confidence in undertaking SSMP, based on an experiential model that shaped the educational content and content delivery.

Basis for experiential learning model

Student evaluations highlighted the absence of SSMP approaches in taught clinical skills sessions and students reported that in clinical practice, mentors did not articulate their rationales for SSMP, resulting in confusion, stress and fear of getting it wrong, hindering learning (Finnerty & Pope 2005).

The students proposed learning strategies to enhance their learning which aligned naturally with Kolb's experiential model of learning (Kolb 1984). Kolb's model assumes that the student is not a blank slate and that their experiences can be used to build on, thus individualising learning (Hill 2017). Skilled clinical knowledge depends on the process of making adjustments to preconceived ideas and expectations by being exposed to a variety of situations (Cioffi & Markham 1996); the use of reflection to 'make sense' of the experience then results in ongoing, continuing learning and develops students' capacity to cope with uncertainty.

How the experiential model for SSMP was implemented

Experiential learning has been described as *'A sense making process involving significant experiences that, to varying degrees, act as the source of learning. These experiences actively immerse and reflectively engage the inner world of the learner, as a whole person'* (Beard and Wilson 2013, p.17).

Kolb proposes four stages of learning (highlighted in bold in Table 1)

that are mutually supportive and result in 'deep' learning if all stages are experienced. Students identified that they experienced educational 'gaps' at each stage of Kolb's model.



A session was created in response to these gaps and a variety of SSMP approaches are now demonstrated in the classroom, each accompanied by a discussion on the quality of underpinning evidence (Table 1. **Concrete experience**). Evidence exists for warm compresses on the perineum to reduce perineal trauma (Dahlen et al 2007) and this technique is demonstrated despite being seen infrequently by the students in practice.

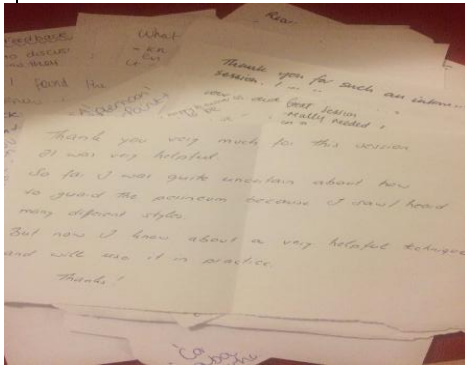
The students recognised that greater partnership working with women had the potential to improve their confidence in preserving perineal integrity; however, they reported that in practice, SSMP was rarely adapted to the woman and her clinical situation as mentors often had a preferred approach that was used on every woman. Time was allocated in the session for generating ideas about how students can utilise the contact time with women (Table 1. **Observe and Reflect**). A detailed description and demonstration of antenatal perineal massage was presented to the students and they are invited to think about some of the challenges for women in undertaking perineal massage from 35 weeks (Beckman and Stock 2013). This gives the students the opportunity to think about the woman's experience, to offer practical solutions and to consider the importance of providing clear instruction and rationales. According to the students, antenatal perineal massage is discussed

rarely and superficially, therefore this level of detail is appreciated. As Smith et al (2017) report, working in partnership with women during pregnancy and birth is integral to midwives' expertise in preserving perineal integrity.

The session, presented to small teaching groups of twenty (normal cohort size is 95), encourages open discussions on clinical practice. The questions asked by the students during the sessions facilitate further reflection and generalisation (Table 1.**Abstract Conceptualisation**) and application of amended knowledge is then simulated using the models (Table 1.**Active Experimentation**). This also aids practical learning such as where to position oneself and place equipment which has been demonstrated to be a useful skill in other studies (Lendahls & Oscarsson 2016). The learning stages and strategies are shown in **Table 1** however individual stages may take place in the clinical area.

Table 1. Content delivery aligned with Kolb's stages of learning.

Kolb Stage	Session learning content
<p>Concrete Experience: Experience</p> <p>Classroom session</p> 	<p>Demonstration of SSMP approaches (simulation, photos and video)</p> <p>Strength of evidence and absence of evidence highlighted</p>
<p>Observe and Reflect: Reflect</p> <p>Classroom session</p>  <p>Photo credit: Alfredo Falvo</p>	<p>Reflection and sharing of students' experiences and observations of SSMP in clinical practice.</p>
<p>Abstract Conceptualisation: Generalise</p> <p>Classroom session</p>	<p>Students are supported in making sense of what has happened by consolidating theory and practice and reflection leading to a new theory.</p> <p>Students are asked to write learning</p>



points from session and how they will use in clinical area.

Active experimentation: Apply

Classroom session



In the clinical area

Support in application of the modified approach

Simulation with low fidelity models in different positions in small groups. This enables students to attempt SSMP approaches demonstrated in the classroom and shared by fellow students

Individual students have reported that they have had some success at introducing warm compresses on the perineum into own practice

How well does the model work?

The students have reported that the experience of simulation and skills training reinforces the theory with practical knowledge (Lendahls and Oscarsson 2016) and this is consistent in the positive feedback received.

The safe, supportive and non-judgemental space away from the clinical placement area was considered valuable for learning. The exchange of experiences enables learners to identify resources in themselves to facilitate problem solving (White 2010). Practising SSMP in the classroom does not compromise women's safety, and provided freedom to attempt a variety of approaches.

Does the teaching model meet maternal health needs?

Personalised care is central to current maternity policy in the United Kingdom (Maternity Review 2016) and closely connected to safety.

Midwife-led continuity of care models have been shown to decrease the rates of episiotomy compared to other models of care (Sandall et al 2016) however continuity models are currently not widespread in the UK, and in the majority of cases, women have not previously met the midwife or midwives who care for them in labour (Redshaw and Heikkila 2010).

There is a dearth of evidence in relation to women's views on SSMP however the students' identification of preparatory discussions with

women may provide the impetus for a more personalised approach to this aspect of care.

Does this model develop midwives with appropriate skills and competencies?

The application of Kolb's model to SSMP education ensures that consideration and time is provided for students to develop their 'theories' relating to SSMP, enhancing understanding of rationales, the limitations of the evidence base, the wide range of SSMP approaches and the common principles of SSMP such as good communication with the woman and good visualisation of the perineum, and these help to consolidate theory and practice. Further research needs to be undertaken to consider how this session has impacted on the students' practice, post-qualification.

What is of benefit and what is missing?

Simulation is helpful in 'bringing alive' the principles of SSMP and students do appear to be fully absorbed in the low fidelity experience as they talk to the model and make sounds to replicate a birthing situation. Resources that show SSMP approaches clearly are limited and students who respond well to visual learning have commented on the desire for more films.

What are the threats and challenges

The session is currently delivered in the second year of a three year programme, however student feedback suggests that they would like it in each year of the programme in recognition that additional learning opportunities may arise as experience in SSMP increases. This poses a significant challenge as there are competing priorities in an already crowded curriculum.

The learning environment is considered crucial to developing confidence. The safe, non-judgemental approach of the sessions has been contrasted with the experience of clinical placement, where the stressful working environment and the 'blame' culture, described by the students, is likely to impact on learning (Khajehei et al 2011). This limits the opportunity to apply adapted or modified knowledge consistent with the fourth stage of Kolb's cycle.

Conclusion

The quality of decision making affects care quality (Jefford 2012), and should be based on the best available evidence (NMC 2015). This provides a challenge for student midwives and their educators as the best available evidence for SSMP is limited. The classroom setting can provide safety to simulate SSMP approaches away from the gaze of clinical assessors and offer opportunities to attempt different SSMP with

a view to individualising care to suit the woman and the clinical situation. The experiential model offers a low resource approach to teaching SSMP and has potential application in other countries; it is consistent with the constructivist learning models recommended within the *Global Standards for Midwifery Education* (International Confederation of Midwives 2013). Longitudinal research is needed to examine whether the experiential model described in this paper has the potential to improve students' confidence in undertaking SSMP after qualification.

Conflict of Interest: None

Acknowledgments: None

References

- Beard, C. & Wilson, J.P. (2013) *Experiential Learning: A handbook for education, training and coaching*. 3rd Ed. London: Kogan Page.
- Beckman, M. & Stock, O. (2013) Antenatal perineal massage for reducing perineal trauma. Cochrane Database of Systematic Reviews DOI: 10.1002/14651858.CD005123.pub3
- Cioffi, J. & Markham, R. (1996) Clinical decision making by midwives: managing case complexity *Journal of Advanced Nursing* 25: 265-272
- Dahlen, H.G., Homer, C.S, Cooke, M., Upton, A.M., Nunn, R., Brodrick, B. (2007) Perineal outcomes and maternal comfort related to the application of perineal warm packs in the second stage of labor: A randomized controlled trial. *Birth* 34(4): 282–90
- Finnerty, G. & Pope, R. (2005) An exploration of student midwives' language to describe non-formal learning in professional practice. *Nurse Education Today* (2005) 25, 309–315

Hill B (2017) Research into experiential learning in nurse education. *British Journal of Nursing*, 2017, Vol 26, No 16 932-928

International Confederation of Midwives (2010) Global standards for basic midwifery education <http://internationalmidwives.org/what-we-do/education-core-documents/global-standards-education/> Accessed 30/11/17

Jefford, E (2012) 'Optimal midwifery decision-making during 2nd stage labour: the integration of clinical reasoning into midwifery practice', PhD thesis, Southern Cross University, Lismore, NSW.

Khajehei, M., Ziyadlou, S., Hadzic, M., Kashefi, F (2011) The genesis and consequences of stress among midwifery students. *British Journal of Midwifery* 19: 379–385.

Kolb D (1984) *Experiential Learning as the Science of Learning and Development*. Englewood Cliffs. NJ. Prentice Hall

Lendahls, L. & Oscarsson, M. (2016) Midwifery students' experiences of simulation- and skills training *Nurse Education Today* 2016 December 16, 50: 12-16

McCandlish R, Bowler U, van Asten H, Berridge G, Winter C, Sames L, Garcia J, Renfrew M, Elbourne D (1998) A randomised control trial of care of the perineum during second stage of normal labour. *British Journal of Obstetrics and Gynaecology* **105**(12): 1262–72

National Institute for Health and Care Excellence [NICE] (2014) Intrapartum Care for Healthy women and babies Clinical Guideline 190.

www.nice.org.uk/guidance/cg190/resources/intrapartum-care-for-healthy-women-and-babies-pdf-35109866447557 accessed 30/11/17

National Maternity Review (2016) *Better Births – Improving outcomes of maternity services in England – A Five Year Forward View for maternity care* NHS England.

Nursing and Midwifery Council (2015) *The Code professional standards of practice and behaviour for nurses and midwives*, Nursing and Midwifery Council, London, UK

Redshaw and Heikkila (2010) *Delivered with care: a national survey of women's experience of maternity care*. The National Perinatal Epidemiology Unit (NPEU) University of Oxford

Sandall, J., Soltani, H., Gates, S., Shennan, A., & Devane, D. (2016) 'Midwife-led continuity models versus other models of care for childbearing women'. *Cochrane Database of Systematic Reviews* Issue 9. Art. No.: CD004667.

Smith, V., Guilliland, K., Dixon, L. et al (2017). Irish and New Zealand Midwives' expertise at preserving the perineum intact (the MEPPi study): perspectives on preparations for birth. *Midwifery* 55: 83-89.

Trochez R., Waterfield, M. and Freeman, R. (2011) Hands on or hands off the perineum: a survey of care of the perineum in labour (HOOPS) International Urogynecology Journal 22: 1279–1285

White, C. (2010) A socio-cultural approach to learning in the practice setting. Nurse Education Today 30 (2010) 794–797

Abstract

Background and Objective

The limited availability of high quality evidence related to second stage management of the perineum (SSMP) combined with a perceived shift in UK practice towards a 'hands off' the perineum/fetal head approach are likely to have impacted significantly on student midwives' understanding of SSMP. This paper presents a classroom based educational session using low fidelity simulation, which was designed in response to student feedback and aimed to improve confidence in this skill. Kolb's experiential model guided the content delivery.

Design

Reflective Teaching practice, based on evaluation of SSMP teaching

Setting

An undergraduate midwifery programme based at an inner city university in London UK

Participants

Student Midwives

Findings

The education session based on Kolb's experiential approach to learning appeared to address gaps in the previous teaching which was identified by students. A classroom setting offered a safe environment in which to experiment with different SSMP approaches with a view to personalising care and without compromising safety.

Conclusions and implications for practice

Although further longitudinal research is needed, the experiential model appears to offer a low resource approach to teaching SSMP and has potential application in other countries.

An experiential model of education introduced to improve the confidence of student midwives in undertaking second stage management of the perineum (SSMP)

Background

There is little high quality evidence to guide practice on second stage management of the perineum (SSMP). This, combined with a perceived shift in practice towards a 'hands off' approach during the second stage of labour, has impacted on student midwives' understanding of SSMP, and presents an educational challenge.

The change in SSMP practice in the United Kingdom (UK) has been associated with the 'Hands on or Hands Poised' ('HOOP') randomised controlled trial (McCandlish et al 1998). The HOOP trial compared a 'hands on' approach (then usual practice) with a 'hands poised' approach, and found the 'hands on' approach was associated with a reduction in mild perineal pain at ten days. Perineal trauma was reported as a secondary outcome, and there was no overall difference in rates of trauma between the 'hands on' and 'hands poised' groups, although a lower episiotomy rate was noted in the 'hands poised' group (McCandlish et al 1998). The intervening years have seen a rise of obstetric anal sphincter injuries (OASI), giving rise to widespread concern about perineal trauma during birth (Trochez et al 2011), and a drive to understand better how and whether SSMP practices might reduce this.

Current UK guidance reflects the uncertainties within the available evidence, recommending that either a 'hands on' or a 'hands poised' approach may be used during normal birth (NICE 2014, pg 60). To date, there is little published evidence on how student midwives develop confidence in SSMP. Whilst evaluating this aspect of teaching, student midwives at a London university (n= 285) were asked whether they felt confident in SSMP and, if not, what would improve their confidence. Whilst 43% answered positively, 57% of students identified a need for additional teaching input. This paper describes a learning opportunity introduced to improve students' understanding and confidence in undertaking SSMP, based on an experiential model that shaped the educational content and content delivery.

Basis for experiential learning model

Feedback from students highlighted the absence of SSMP approaches in taught clinical skills sessions and students reported that in clinical practice, mentors did not articulate their rationales for SSMP, resulting in confusion and stress due to being left 'in the dark' (Young 2012 p. 826) and fear of getting it wrong, hindering learning (Finnerty & Pope 2005).

The students proposed learning strategies to enhance their learning which aligned naturally with Kolb's experiential model of learning (Kolb 1984). Kolb's model assumes that the student is not a blank slate and that their experiences can be used to build on, thus individualising learning (Hill 2017). Skilled clinical knowledge depends on the process of making adjustments to preconceived ideas and expectations by being exposed to a variety of situations (Cioffi & Markham 1996); the use of reflection to 'make sense' of the experience then results in ongoing, continuing learning and develops students' capacity to cope with uncertainty.

How the experiential model for SSMP was implemented

Experiential learning has been described as *'A sense making process involving significant experiences that, to varying degrees, act as the source of learning. These experiences actively immerse and reflectively engage the inner world of the learner, as a whole person'* (Beard and Wilson 2013, p.17). Kolb proposes four stages of learning that are mutually supportive and result in 'deep' learning if all four stages are experienced (Table 1). Students identified that they experienced educational 'gaps' at each stage of Kolb's model.



A session was created in response to these gaps and a variety of SSMP approaches are now demonstrated in the classroom, each accompanied by a discussion on the quality of underpinning evidence (**Concrete experience**). Evidence exists for warm compresses on the perineum to reduce perineal trauma (Dahlen et al 2007; Albers et al 2005) and this technique is demonstrated despite being seen infrequently by the students in practice.

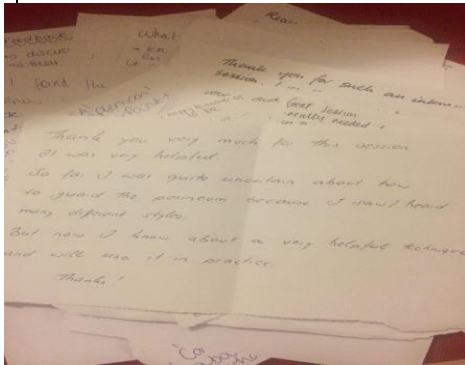
Students recognised that greater partnership working with women had the potential to improve their confidence in preserving perineal integrity; however, they reported that in practice, SSMP was rarely adapted to the woman and her clinical situation as mentors often had a preferred approach that was used on every woman. Time was allocated in the session for generating ideas about how students can utilise the contact time with women (**Observe and Reflect**). A detailed description and demonstration of antenatal perineal massage was presented to the students and they are invited to think about some of the challenges for women in undertaking perineal massage from 35 weeks (Beckman and Stock 2013). This gives students the opportunity to think about the woman's experience, to offer practical solutions and to consider the importance of providing clear instruction and rationales. According to students, antenatal perineal massage is discussed rarely and

superficially, therefore this level of detail is appreciated. As Smith et al (2017) report, working in partnership with women during pregnancy and birth is integral to midwives' expertise in preserving perineal integrity.

The session, presented to small teaching groups of twenty (normal cohort size is 95), encourages open discussions on clinical practice. The questions asked by students during the sessions facilitate further reflection and generalisation (**Abstract Conceptualisation**) and application of amended knowledge is then simulated using the models (**Active Experimentation**). This also aids practical learning such as where to position oneself and place equipment which has been demonstrated to be a useful skill in other studies (Lendahls & Oscarsson 2016). The learning stages and strategies are shown in **Table 1** however individual stages may take place in the clinical area.

Table 1. Content delivery aligned with Kolb's stages of learning.

Kolb Stage	Session learning content
<p>Concrete Experience: Experience</p> <p>Classroom session</p> 	<p>Demonstration of SSMP approaches (simulation, photos and video)</p> <p>Strength of evidence and absence of evidence highlighted</p>
<p>Observe and Reflect: Reflect</p> <p>Classroom session</p>  <p>Photo credit: Alfredo Falvo</p>	<p>Reflection and sharing of students' experiences and observations of SSMP in clinical practice.</p>
<p>Abstract Conceptualisation: Generalise</p> <p>Classroom session</p>	<p>Students are supported in making sense of what has happened by consolidating theory and practice and reflection leading to a new theory.</p> <p>Students are asked to write learning</p>



points from session and how they will use in clinical area.

Active experimentation: Apply

Classroom session



In the clinical area

Support in application of the modified approach

Simulation with low fidelity models in different positions in small groups. This enables students to attempt SSMP approaches demonstrated in the classroom and shared by fellow students

Individual students have reported that they have had some success at introducing warm compresses on the perineum into own practice

How well does the model work?

Students have reported that the experience of simulation and skills training reinforces the theory with practical knowledge (Lendahls and Oscarsson 2016) and this is consistent in the positive feedback received.

The safe, supportive and non-judgemental space away from the clinical placement area was considered valuable for learning. The exchange of experiences enables learners to identify resources in themselves to facilitate problem solving (White 2010). Practising SSMP in the classroom does not compromise womens' safety, and provided freedom to attempt a variety of approaches.

Does the teaching model meet maternal health needs?

Personalised care is central to current maternity policy in the United Kingdom (Nursing and Midwifery Review 2016) and closely connected to safety. Midwife-led continuity of care models have been shown to decrease the rates of episiotomy compared to other models of care (Sandall et al 2016) however continuity models are currently not widespread in the UK, and in the majority of cases, women have not previously met the midwife or midwives who care for them in labour (Redshaw and Heikkila 2010). There is a dearth of evidence in relation to women's views on SSMP however students' identification of

preparatory discussions with women may provide the impetus for a more personalised approach to this aspect of care.

Does this model develop midwives with appropriate skills and competencies?

The application of Kolb's model to SSMP education ensures that consideration and time is provided for students to develop their 'theories' relating to SSMP, enhancing understanding of rationales, the limitations of the evidence base, the wide range of SSMP approaches and the common principles of SSMP such as good communication with the woman and good visualisation of the perineum, and these help to consolidate theory and practice. Further research needs to be undertaken to consider how this session has impacted on the students' practice, post-qualification.

What is of benefit and what is missing?

Simulation is helpful in 'bringing alive' the principles of SSMP and students do appear to be fully absorbed in the low fidelity experience as they talk to the model and make sounds to replicate a birthing situation. Resources that show SSMP approaches clearly are limited and students who respond well to visual learning have commented on the desire for more films.

What are the threats and challenges

The session is currently delivered in the second year of a three year programme, however student feedback suggests that they would like it in each year of the programme in recognition that additional learning opportunities may arise as experience in SSMP increases. This poses a significant challenge as there are competing priorities in an already crowded curriculum.

The learning environment is considered crucial to developing confidence. The safe, non-judgemental approach of the sessions has been contrasted with the experience of clinical placement, where the stressful working environment and the 'blame' culture, described by the students, is likely to impact on learning (Khajehei et al 2011). This limits the opportunity to apply adapted or modified knowledge consistent with the fourth stage of Kolb's cycle.

Conclusion

The quality of decision making affects care quality (Jefford 2012), and should be based on the best available evidence (NMC 2015). This provides a challenge for student midwives as the best available evidence for SSMP is limited. The classroom setting can provide safety to simulate SSMP approaches away from the gaze of clinical assessors and offer opportunities to attempt different SSMP with a view to

individualising care to suit the woman and the clinical situation. The experiential model offers a low resource approach to teaching SSMP and has potential application in other countries; it is consistent with the constructivist learning models recommended within the *Global Standards for Basic Midwifery Education* (International Confederation of Midwives 2010). Longitudinal research is needed to examine whether the experiential model described in this paper has the potential to improve students' confidence in undertaking SSMP after qualification.

Conflict of Interest: None

Acknowledgments: None

References

- Albers, L.L., Sedler, K.D., Bedrick, E.J., Teaf, D., and Peralta, P. (2005) Midwifery care measures in the second stage of labor and reduction of genital tract trauma at birth: a randomized trial. *Journal of Midwifery & Women's Health* 50 (5):365-72.
- Beard, C. & Wilson, J.P. (2013) *Experiential Learning: A handbook for education, training and coaching*. 3rd Ed. London: Kogan Page.
- Beckman, M. & Stock, O. (2013) Antenatal perineal massage for reducing perineal trauma. *Cochrane Database of Systematic Reviews* DOI: 10.1002/14651858.CD005123.pub3
- Cioffi, J. & Markham, R. (1996) Clinical decision making by midwives: managing case complexity *Journal of Advanced Nursing* 25: 265-272
- Dahlen, H.G., Homer, C.S, Cooke, M., Upton, A.M., Nunn, R., Brodrick, B. (2007) Perineal outcomes and maternal comfort related to the application of perineal warm packs in the second stage of labor: A randomized controlled trial. *Birth* 34(4): 282–90

Finnerty, G. & Pope, R. (2005) An exploration of student midwives' language to describe non-formal learning in professional practice. *Nurse Education Today* (2005) 25, 309–315

Hill B (2017) Research into experiential learning in nurse education. *British Journal of Nursing*, 2017, Vol 26, No 16 932-928

International Confederation of Midwives (2010) Global standards for basic midwifery education <http://internationalmidwives.org/what-we-do/education-core-documents/global-standards-education/> Accessed 30/11/17

Jefford, E (2012) 'Optimal midwifery decision-making during 2nd stage labour: the integration of clinical reasoning into midwifery practice', PhD thesis, Southern Cross University, Lismore, NSW.

Khajehei, M., Ziyadlou, S., Hadzic, M., Kashefi, F (2011) The genesis and consequences of stress among midwifery students. *British Journal of Midwifery* 19: 379–385.

Kolb D (1984) *Experiential Learning as the Science of Learning and Development*. Englewood Cliffs. NJ. Prentice Hall

Lendahls, L. & Oscarsson, M. (2016) Midwifery students' experiences of simulation- and skills training *Nurse Education Today* 2016 December 16, 50: 12-16

McCandlish R, Bowler U, van Asten H, Berridge G, Winter C, Sames L, Garcia J, Renfrew M, Elbourne D (1998) A randomised control trial of care of the perineum during second stage of normal labour. *British Journal of Obstetrics and Gynaecology* 105(12): 1262–72

National Institute for Health and Care Excellence [NICE] (2014) Intrapartum Care for Healthy women and babies Clinical Guideline 190.

www.nice.org.uk/guidance/cg190/resources/intrapartum-care-for-healthy-women-and-babies-pdf-35109866447557 accessed 30/11/17

National Maternity Review (2016) *Better Births – Improving outcomes of maternity services in England – A Five Year Forward View for maternity care* NHS England.

Nursing and Midwifery Council (2015) *The Code professional standards of practice and behaviour for nurses and midwives*, Nursing and Midwifery Council, London, UK

Redshaw and Heikkila (2010) *Delivered with care: a national survey of women's experience of maternity care*. The National Perinatal Epidemiology Unit (NPEU) University of Oxford

Sandall, J., Soltani, H., Gates, S., Shennan, A., & Devane, D. (2016) 'Midwife-led continuity models versus other models of care for childbearing women'. *Cochrane Database of Systematic Reviews* Issue 9. Art. No.: CD004667.

Smith, V., Guilliland, K., Dixon, L. et al (2017). Irish and New Zealand Midwives' expertise at preserving the perineum intact (the MEPPI study): perspectives on preparations for birth. *Midwifery* 55: 83-89.

Trochez R., Waterfield, M. and Freeman, R. (2011) Hands on or hands off the perineum: a survey of care of the perineum in labour (HOOPS) *International Urogynecology Journal* 22: 1279–1285

White, C. (2010) A socio-cultural approach to learning in the practice setting. *Nurse Education Today* 30 (2010) 794–797

Young, N. (2012). An exploration of clinical decision-making among students and newly qualified midwives. *Midwifery* 28 (2012) 824–830

conflict of interest from Co Author

[Click here to download Supplementary Material: coi_disclosure KCoxon Jan 2018.pdf](#)

conflict of interest from first author

[Click here to download Supplementary Material: coi_disclosure complete TA \(2\).pdf](#)

Supplementary Material

[Click here to download Supplementary Material: coi_disclosure complete TA.pdf](#)

Ethical statement from first author

[Click here to download Supplementary Material: Ethical Statement \(1\) Teresa Arias Januay 2018.docx](#)